SEQUENCE LISTING

<110> Fourie, Anne
       Coles, Fawn
       Karlsson, Lars

<120> Aggrecanase-1 and -2 Peptide Substrates and Methods

<130> ORT-1417

<160> 60

<170> PatentIn version 3.1

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<220>
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<400> 3

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<210> 4
<211> 11
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Ala Asp Leu Ser Ser Phe Lys Ser Gln Glu Leu
1               5                   10
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<210> 5
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<220>
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Glu Lys Ala Arg Val Leu Ala Glu Ala Ala
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<210> 6
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide Substrate

<400> 6

Glu Lys Ala Arg Val Leu Ala Glu Ala Met
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<210> 7
<211> 13
<212> PRT
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<220>
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<400> 7

Glu Arg Ala Glu Gln Gln Arg Leu Lys Ser Gln Asp Leu
1   5   10

<210> 8
<211> 447
<212> PRT
<213> Homo sapiens

<220>
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<222> (1)..(447)
<223> truncated Aggrecanase 1

<400> 8

Met Ser Gln Thr Gly Ser His Pro Gly Arg Gly Leu Ala Gly Arg Trp
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Leu Trp Gly Ala Gln Pro Cys Leu Leu Leu Pro Ile Val Pro Leu Ser
              20   25   30

Trp Leu Val Trp Leu Leu Leu Leu Leu Ala Ser Leu Leu Pro Ser
     35   40   45

Ala Arg Leu Ala Ser Pro Leu Pro Arg Glu Glu Glu Ile Val Phe Pro
     50   55   60

Glu Lys Leu Asn Gly Ser Val Leu Pro Gly Ser Gly Thr Pro Ala Arg
65   70   75   80

Leu Leu Cys Arg Leu Gln Ala Phe Gly Glu Thr Leu Leu Leu Glu Leu
           85   90   95

Glu Gln Asp Ser Gly Val Gln Val Glu Gly Leu Thr Val Gln Tyr Leu
          100   105   110

Gly Gln Ala Pro Glu Leu Leu Gly Gly Ala Glu Pro Gly Thr Tyr Leu
         115   120   125

Thr Gly Thr Ile Asn Gly Asp Pro Glu Ser Val Ala Ser Leu His Trp
     130   135   140

Asp Gly Gly Ala Leu Leu Gly Val Leu Gln Tyr Arg Gly Ala Glu Leu
145   150   155   160

His Leu Gln Pro Leu Glu Gly Gly Thr Pro Asn Ser Ala Gly Gly Pro
             165   170   175

Gly Ala His Ile Leu Arg Arg Lys Ser Pro Ala Ser Gly Gln Gly Pro
          180   185   190

Met Cys Asn Val Lys Ala Pro Leu Gly Ser Pro Ser Pro Arg Pro Arg
     195   200   205

Arg Ala Lys Arg Phe Ala Ser Leu Ser Arg Phe Val Glu Thr Leu Val
     210   215   220

Val Ala Asp Asp Lys Met Ala Ala Phe His Gly Ala Gly Leu Lys Arg
225   230   235   240

Tyr Leu Leu Thr Val Met Ala Ala Ala Ala Lys Ala Phe Lys His Pro
          245   250   255

```
Ser Ile Arg Asn Pro Val Ser Leu Val Val Thr Arg Leu Val Ile Leu
            260             265             270

Gly Ser Gly Glu Glu Gly Pro Gln Val Gly Pro Ser Ala Ala Gln Thr
            275             280             285

Leu Arg Ser Phe Cys Ala Trp Gln Arg Gly Leu Asn Thr Pro Glu Asp
            290             295             300

Ser Asp Pro Asp His Phe Asp Thr Ala Ile Leu Phe Thr Arg Gln Asp
305                         310             315             320

Leu Cys Gly Val Ser Thr Cys Asp Thr Leu Gly Met Ala Asp Val Gly
                325             330             335

Thr Val Cys Asp Pro Ala Arg Ser Cys Ala Ile Val Glu Asp Asp Gly
                340             345             350

Leu Gln Ser Ala Phe Thr Ala Ala His Glu Leu Gly His Val Phe Asn
                355             360             365

Met Leu His Asp Asn Ser Lys Pro Cys Ile Ser Leu Asn Gly Pro Leu
            370             375             380

Ser Thr Ser Arg His Val Met Ala Pro Val Met Ala His Val Asp Pro
385                         390             395             400

Glu Glu Pro Trp Ser Pro Cys Ser Ala Arg Phe Ile Thr Asp Phe Leu
                405             410             415

Asp Asn Gly Tyr Gly His Cys Leu Leu Asp Lys Pro Glu Ala Pro Leu
            420             425             430

His Leu Pro Val Thr Gly Asp Tyr Lys Asp Asp Asp Lys Gly
            435             440             445
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<210>   9
<211>   492
<212>   PRT
<213>   Homo sapiens

<220>
<221>   MISC_FEATURE
<222>   (1)..(492)
<223>   truncated Aggrecanse-2
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<400> 9

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Met Leu Leu Gly Trp Ala Ser Leu Leu Leu Cys Ala Phe Arg Leu Pro
1               5                   10                  15

Leu Ala Ala Val Gly Pro Ala Ala Thr Pro Ala Gln Asp Lys Ala Gly
            20              25                  30

Gln Pro Pro Thr Ala Ala Ala Ala Ala Gln Pro Arg Arg Arg Gln Gly
        35              40                  45

Glu Glu Val Gln Glu Arg Ala Glu Pro Pro Gly His Pro His Pro Leu
    50              55                  60

Ala Gln Arg Arg Arg Ser Lys Gly Leu Val Gln Asn Ile Asp Gln Leu
65                  70              75                  80

Tyr Ser Gly Gly Gly Lys Val Gly Tyr Leu Val Tyr Ala Gly Gly Arg
            85                  90                  95

Arg Phe Leu Leu Asp Leu Glu Arg Asp Gly Ser Val Gly Ile Ala Gly
        100                 105                 110

Phe Val Pro Ala Gly Gly Gly Thr Ser Ala Pro Trp Arg His Arg Ser
        115                 120                 125

His Cys Phe Tyr Arg Gly Thr Val Asp Gly Ser Pro Arg Ser Leu Ala
    130                 135                 140

Val Phe Asp Leu Cys Gly Gly Leu Asp Gly Phe Phe Ala Val Lys His
145                 150                 155                 160

Ala Arg Tyr Thr Leu Lys Pro Leu Leu Arg Gly Pro Trp Ala Glu Glu
                165                 170                 175

Glu Lys Gly Arg Val Tyr Gly Asp Gly Ser Ala Arg Ile Leu His Val
            180                 185                 190

Tyr Thr Arg Glu Gly Phe Ser Phe Glu Ala Leu Pro Pro Arg Ala Ser
        195                 200                 205

Cys Glu Thr Pro Ala Ser Thr Pro Glu Ala His Glu His Ala Pro Ala
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          210                      215                      220

     His Ser Asn Pro Ser Gly Arg Ala Ala Leu Ala Ser Gln Leu Leu Asp
     225               230               235               240

     Gln Ser Ala Leu Ser Pro Ala Gly Gly Ser Gly Pro Gln Thr Trp Trp
                       245               250               255

     Arg Arg Arg Arg Arg Ser Ile Ser Arg Ala Arg Gln Val Glu Leu Leu
                   260               265               270

     Leu Val Ala Asp Ala Ser Met Ala Arg Leu Tyr Gly Arg Gly Leu Gln
                   275               280               285

     His Tyr Leu Leu Thr Leu Ala Ser Ile Ala Asn Arg Leu Tyr Ser His
             290               295               300

     Ala Ser Ile Glu Asn His Ile Arg Leu Ala Val Val Lys Val Val Val
     305               310               315               320

     Leu Gly Asp Lys Asp Lys Ser Leu Glu Val Ser Lys Asn Ala Ala Thr
                   325               330               335

     Thr Leu Lys Asn Phe Cys Lys Trp Gln His Gln His Asn Gln Leu Gly
                   340               345               350

     Asp Asp His Glu Glu His Tyr Asp Ala Ala Ile Leu Phe Thr Arg Glu
                 355               360               365

     Asp Leu Cys Gly His His Ser Cys Asp Thr Leu Gly Met Ala Asp Val
         370               375               380

     Gly Thr Ile Cys Ser Pro Glu Arg Ser Cys Ala Val Ile Glu Asp Asp
     385               390               395               400

     Gly Leu His Ala Ala Phe Thr Val Ala His Glu Ile Gly His Leu Leu
                   405               410               415

     Gly Leu Ser His Asp Asp Ser Lys Phe Cys Glu Glu Thr Phe Gly Ser
                   420               425               430

     Thr Glu Asp Lys Arg Leu Met Ser Ser Ile Leu Thr Ser Ile Asp Ala
                   435               440               445
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Ser Lys Pro Trp Ser Lys Cys Thr Ser Ala Thr Ile Thr Glu Phe Leu
    450             455             460


Asp Asp Gly His Gly Asn Cys Leu Leu Asp Leu Pro Arg Lys Gln Ile
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Leu Gly Gly Asp Tyr Lys Asp Asp Asp Lys Gly
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<212>  PRT
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<220>
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<400>  10

Glu His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg
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<211>  4
<212>  PRT
<213>  Artificial sequence

<220>
<223>  Peptide substrate

<400>  11

Glu Ala Glu Asn
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<210>  12
<211>  11
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Peptide Substrate

<400>  12

Glu Gly Arg His Ile Asp Asn Glu Glu Asp Ile
1               5               10
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<210>  13
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<211>   9
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Peptide substrate

<400>   13

Glu Gly Asn Ala Phe Asn Asn Leu Asp
1                   5


<210>   14
<211>   11
<212>   PRT
<213>   Artificial Sequence

<220>
<223>   Peptide substrate

<400>   14

Glu Tyr Thr Pro Asn Asn Glu Ile Asp Ser Phe
1                   5                   10


<210>   15
<211>   8
<212>   PRT
<213>   Artificial sequence

<220>
<223>   Peptide substrate

<400>   15

Glu Gln Leu Arg Met Lys Leu Pro
1                   5


<210>   16
<211>   8
<212>   PRT
<213>   Artificial sequence

<220>
<223>   Peptide substrate

<400>   16

Glu Arg Gly Phe Phe Tyr Thr Pro
1                   5


<210>   17
<211>   8
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<212>    PRT
<213>    Artificial Sequence

<220>
<223>    Peptide substrate

<400>    17

Glu Val Thr Glu Gly Pro Ile Pro
1               5


<210>    18
<211>    8
<212>    PRT
<213>    Artificial Sequence

<220>
<223>    Peptide substrate

<400>    18

Glu Pro Leu Phe Tyr Glu Ala Pro
1               5


<210>    19
<211>    8
<212>    PRT
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<220>
<223>    peptide substrate

<400>    19

Glu Leu Pro Met Gly Ala Leu Pro
1               5


<210>    20
<211>    9
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<213>    Artificial Sequence

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Glu Lys Pro Ala Ala Phe Phe Arg Leu
1               5


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<212>    PRT
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<213> Artificial sequence

<220>
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<400> 21

Glu Leu Tyr Glu Asn Lys Pro Arg Arg Pro Tyr Ile Leu
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<210> 22
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<220>
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<400> 22

Glu Ser Glu Val Asn Leu Asp Ala Glu Phe
1   5   10

<210> 23
<211> 9
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<223> Peptide Substrate

<400> 23

Glu Ser Gln Asn Tyr Pro Ile Val Gln
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<210> 24
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<400> 24

Glu Lys Pro Ile Glu Phe Phe Arg Leu
1   5

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<220>
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<400> 25

Glu Lys Pro Ala Glu Phe Phe Ala Leu
1   5

<210> 26
<211> 9
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<220>
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<400> 26

Glu Lys Pro Ala Lys Phe Phe Arg Leu
1   5

<210> 27
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<220>
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<400> 27

Glu Ile Pro Phe His Leu Val Ile His Thr
1   5   10

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<400> 28

Glu Met Ala Pro Gly Ala Val His Leu Pro Gln
1   5   10

<210> 29
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<400>  29

Glu Pro Leu Ala Gln Ala Val Arg Ser Ser Ser
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<210>  30
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<220>
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<400>  30

Glu Pro Pro Val Ala Ala Ser Ser Leu Arg Asn
1               5               10


<210>  31
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<400>  31

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1                5               10


<210>  32
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<223>  peptide substrate

<400>  32

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1               5               10


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<400> 33

Glu Val His His Gln Lys Leu Val Phe Phe Ala
1   5   10

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<400> 34

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<400> 35

Lys Leu Val Leu Ala Ser Ser Ser Phe
1   5

<210> 36
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<400> 36

Lys Ser Asn Arg Leu Glu Ala Ser Ser Arg Ser Ser Pro
1   5   10

<210> 37
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<220>
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<400>  37

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<210>  38
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<220>
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<400>  38

Glu Ala Gly Pro Arg Gly Met Ala Gly Gln Phe Ser His
1               5                   10


<210>  39
<211>  8
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  peptide substrate

<400>  39

Lys Arg Pro Leu Gly Leu Ala Arg
1               5


<210>  40
<211>  10
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  peptide substrate

<400>  40

Glu Gly Tyr Tyr Ser Arg Asp Met Leu Val
1               5                   10


<210>  41
<211>  11
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<212>  PRT
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<220>
<223>  peptide substrate

<400>  41

Glu Gln Lys Leu Asp Lys Ser Phe Ser Met Ile
1               5                   10


<210>  42
<211>  12
<212>  PRT
<213>  artificial sequence

<220>
<223>  peptide substrate

<400>  42

Glu Pro Ser Ala Ala Gln Thr Ala Arg Gln His Pro
1               5                   10


<210>  43
<211>  11
<212>  PRT
<213>  artificial sequence

<220>
<223>  peptide substrate

<400>  43

Glu Pro Gly Ala Gln Gly Leu Pro Gly Val Gly
1               5                   10


<210>  44
<211>  8
<212>  PRT
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<220>
<223>  peptide substrate

<400>  44

Gly Leu Arg Thr Asn Ser Phe Ser
1               5


<210>  45
<211>  11
<212>  PRT
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<213>   artificial sequence

<220>
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<400>   45

Arg Gly Val Val Asn Ala Ser Ser Arg Leu Ala
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<210>   46
<211>   10
<212>   PRT
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<220>
<223>   peptide substrate

<400>   46

Lys Pro Ile Leu Phe Phe Arg Leu Gly Lys
1   5   10

<210>   47
<211>   13
<212>   PRT
<213>   artificial sequence

<220>
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<400>   47

Glu Met His Thr Ala Ser Ser Leu Glu Lys Gln Ile Gly
1   5   10

<210>   48
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<212>   PRT
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<220>
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<400>   48

Glu Arg Phe Ala Gln Ala Gln Gln Gln Leu Pro
1   5   10

<210>   49
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<212>   PRT
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<400> 49

Glu Lys Lys Glu Asn Ser Phe Glu Met Gln Gly Asp Gln
1   5   10

<210> 50
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<220>
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<400> 50

Leu Ala Gln Ala Val Arg Ser Ser Ser Arg
1   5   10

<210> 51
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<400> 51

Glu Arg Thr Ala Ala Val Phe Arg Pro
1   5

<210> 52
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<400> 52

Glu Arg Val Arg Arg Ala Leu Pro
1   5

<210> 53
<211> 9
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<400> 53

Glu Ser Phe Pro Arg Met Phe Ser Asp
1   5

<210> ·54
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<400> 54

Glu Glu Tyr Leu Glu Ser Phe Leu Glu Arg Pro
1   5   10

<210> 55
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<220>
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<400> 55

Glu Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met
1   5   10

<210> 56
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<400> 56

Glu His Gly Asp Gln Met Ala Gln Lys Ser Gln Ser Thr
1   5   10

<210> 57
<211> 15
<212> PRT
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<223>   peptide substrate

<400>   57

Glu Arg Asn Ile Thr Glu Gly Glu Ala Arg Gly Ser Val Ile Leu
1   5   10   15

<210>   58
<211>   10
<212>   PRT
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<220>
<223>   peptide substrate

<400>   58

Glu Ala Gly Gln Arg Leu Ala Thr Ala Met
1   5   10

<210>   59
<211>   12
<212>   PRT
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<220>
<223>   peptide substrate

<400>   59

Glu Val Gly Leu Met Gly Lys Arg Ala Leu Asn Ser
1   5   10

<210>   60
<211>   12
<212>   PRT
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<223>   peptide substrate

<400>   60

Glu Lys Glu Asp Gly Glu Ala Arg Ala Ser Thr Ser
1   5   10